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# The Effect of Functional vs. Non-functional Activities on Attitudes/Expectations of Non-handicapped College Students: What They See is What We Get

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## Article Descriptors

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*Six sections of a general education class for prospective teacher trainees were randomly assigned to one of two groups (N = 162). Each group was exposed to an identical audiotaped/slide presentation of a special education program involving a young woman with Down's Syndrome. However, the slides accompanying one group's taped presentation consisted of functional, integrated, and age appropriate curriculum activities and the slides accompanying the other group's presentation included non-functional, segregated, and age inappropriate activities. Prior to viewing the slide/tape presentation, all persons completed the Attitudes Toward Disabled Persons Questionnaire (ATDP) (Yuker, Block & Young, 1966). After viewing the slides, the participants completed a teacher-made questionnaire regarding their attitudes and expectations toward a young woman with Down's Syndrome. The multivariate analysis of variance resulted in no statistically significant differences between the two groups on the ATDP, but did result in statistically significant differences on the eight non-demographic items of the teacher-made questionnaire. Subsequent comparisons of individual questionnaire items revealed significant differences on those items which estimated IQ, future earning capacity, label of retardation, "best" residential environment, ap-*

*propriate classroom placement, and most likely employment setting. These differences were in the direction of predicting higher levels of competence for the student when depicted as being involved in functional, integrated, and age appropriate activities.*

As deinstitutionalization and community integration emerge as the prominent philosophy in human services, more individuals are leaving institutions and many others are being maintained in community settings. However, for many persons with developmental disabilities, residence in the community does not guarantee integration and active participation in community life. For these individuals, community residence must be accompanied by instructional programs designed to teach essential skills for using community services, participating in recreation, living semi-independently, and securing and maintaining employment.

In addition to the importance of developing a more sophisticated repertoire of community living skills, acceptance by non-handicapped persons is also required for successful community integration (Gottlieb & Corman, 1975). Community acceptance is often discussed in terms of the attitudes held by the general public toward developmentally disabled and other disability

groups. According to Warger and Trippe (1982), attitudes are composed of three interrelated components (i.e., cognitive, affective, and behavioral). Whereas the cognitive component refers to the person's perceptions and the affective component refers to the person's feelings, the behavioral component is one's predisposition to act in a particular manner. For example, a person's perceptions and feelings express themselves behaviorally as the "public voice" and are often the deciding factor in funding allocations, new facility construction and location, school policy on integration of severely handicapped students, and residential zoning regulations. Since public attitudes form the basis of acceptance or rejection of persons with developmental disabilities, greater attention must be given to the identification of variables that contribute to a more favorable community reaction.

Several variables have been found to influence public attitudes toward persons with disabilities. For example, women have more favorable attitudes than men, and younger individuals hold more positive attitudes than do older persons (Gottwald, 1970). Specific variables that have been associated with non-accepting attitudes of teachers toward persons labeled handicapped include a record of institutionalization (Schloss & Miller, 1982), physical stigmata (Aloia, 1975), and limited knowledge of exceptional children (Stephens & Braun, 1980). Although the above studies have contributed to our overall understanding of public attitudes, relatively little attention has been directed at the modification of attitudes held toward disabled persons (Donaldson, 1980).

In a recent study involving special education teacher trainees, Stainback and Stainback (1982) demonstrated that attitudes toward community integration of severely handicapped students were influenced by two different methods of coursework presentation (i.e., lecture presentation versus lecture plus community observation). Those trainees who observed severely handicapped students engaged in community activities were more accepting of integration than were those who participated in the lecture format.

Since observation of persons with severe handicaps (e.g., Down's Syndrome) may influence public attitudes, a closer examination of this variable is warranted. Public school programs for severely handicapped students differ widely in curriculum emphasis and degree of community integration. Some programs subscribe to a developmental curriculum model. An outcome of this model has been the use of activities that are more sensitive to a student's mental age than chronological age. This sometimes results in older students being trained on pre-school tasks that are neither functional nor performed by their same age non-handicapped peers (Guess & Noonan, 1982).

As an alternative to this approach, the criterion of ultimate functioning has been proposed as a standard

for selecting curriculum activities that represent those behaviors that are necessary to function effectively with non-handicapped peers in a variety of community settings (Brown, Nietupski, & Hamre-Nietupski, 1976). Chronological age appropriateness, functionality, and community integration are characteristics of activities that are consistent with this curriculum model. Obviously, the primary focus of these two models is quite different. Although much has been written about the relative merits of both approaches, a lack of empirical data pervades this discussion.

To date, little research has been conducted to investigate the relationship between the attitudes people hold toward a person with a severe handicap (e.g., Down's Syndrome) and the nature of the activities in which they see the person participating. In this study, the attitudes of two groups of college students toward a young woman with Down's Syndrome were compared. One group of college students viewed the young woman participating in functional, integrated, and/or age appropriate activities, while the other group saw her engaged in non-functional, segregated, and/or age inappropriate activities. Although the curriculum activities differed in functionality, integration value, and age appropriateness, this contrast will be referred to as functional versus non-functional in the remainder of this article. Results of this investigation are discussed with respect to selection of curriculum content and delivery of instruction in integrated community settings.

## Method

### Subjects

College students enrolled in the six sections of a general education course at a large mid-western university participated in the study. This course was required of all undergraduates enrolled in the College of Education and offered to others interested in education as a career. All students in attendance the day of the presentation participated in the study. The six sections were randomly assigned to one of two groups, with each group being exposed to a different slide presentation. Group I included 85 college students (38 males and 47 females, average age = 21.5), and Group II consisted of 77 students (34 males and 43 females, average age = 20.8).

### Stimulus Materials

Group I was shown a slide/tape presentation depicting a young woman with Down's Syndrome involved in functional curriculum activities. Group II was exposed to an identical audiotape presentation but was shown a different slide presentation depicting the same young woman engaged in non-functional curriculum activities.

The audiotape explained the curriculum areas and activities in general terms that were appropriate for both

slide presentations. The presentations consisted of 14 slides and took approximately three minutes to view. For each slide showing the student engaged in a functional (useful) activity, there was a corresponding slide in the second presentation showing the student engaged in a non-functional activity. For example, as the audiotape mentioned fine-motor skills, one presentation depicted the young woman putting coins into a

parking meter, while the other slide presentation pictured the woman putting small pegs in a board. The tape was synchronized to ensure that each curriculum area and slide were displayed in the same sequence and for the same amount of time in each presentation. A description of the curriculum areas and slides for each group is listed in Table 1.

Table 1  
Summary of Text and Slides of Presentation

Text	Slides	
	Functional/Integrated	Non-functional/Isolated
Introduction	Student was: 1. walking in front of local high school	Student was: 1. standing in front of local special education facility
Gross Motor Skills	2. walking down courthouse steps	2. walking on a balance beam
Fine Motor Skills	3. putting coins in a parking meter	3. putting small pegs in a peg board
Communication Skills	4. talking on phone at a public telephone booth	4. talking on a toy phone
Self-Care Skills: Tying	5. tying own shoe	5. tying shoelaces of a "tying shoe"
Zippering	6. zipping own coat while wearing it	6. zipping a "button-zip vest" which was lying on the table
Social-Interpersonal Effectiveness: Recreation	7. visiting with friends over a soft drink at a local restaurant	7. playing on the see-saw with a friend
Leisure	8. playing checkers with a friend	8. playing with a doll
Academics: Reading	9. reading a menu	9. reading a "Big Bird" book
Math	10. adding up grocery items with a calculator	10. doing math ditto sheets of addition problems
	11. paying for an item at a store	11. sorting Monopoly money
Time	12. telling time using her own wrist watch	12. telling time using a toy clock
Vocational: Sorting	13. sorting silverware at a local restaurant	13. sorting colored blocks
Stacking	14. stacking racks of glasses	14. stacking rings on a post (e.g., "Fisher-Price")

#### Procedures

The experimenter informed the participants that information would be shared with them regarding educational programming for special education students. They were told this would include viewing a slide/tape presentation, completing two questionnaires and then discussing any questions they might have regarding educational services to handicapped persons.

Prior to viewing the slides, the college students were asked to complete the Attitude Toward Disabled Persons Scale (ATDP). This scale was administered to verify and/or control for the equivalency of the two groups on attitude prior to treatment. The ATDP, Form B (Yuker, Block, & Young, 1966) is a 20-item Likert Scale questionnaire designed to assess the attitudes of non-handicapped individuals toward others who are

handicapped. Available stability and equivalence reliability coefficients for Form B of the ATDP range from +.66 to +.69 and +.75 to +.85 respectively (Yuker, Block, & Younng, 1966). These authors provide further information in support of the construct validity of this instrument.

After all students had completed the ATDP, the slide/tape presentation was viewed. At the conclusion of the presentation, a 13-item questionnaire was completed.<sup>2</sup> Five items dealt with demographic data about the participants. The remaining eight items elicited responses from the participants concerning their familiarity with mental retardation and their expectations of the young woman in the slides regarding her age, IQ, estimated income capabilities, special education label, residential situation best suited to her needs, school program best suited to her needs and the best post-school vocational option for her apparent skill level. Of these eight items, all responses were structured along a Likert type scaling from 1 to 7 or 1 to 5, with the exception of the estimation of the young woman's age. All items were generated by the authors on the basis of their presumed relevance to community opinion regarding community integration and participation by persons labeled severely handicapped.

#### Analysis

Data were analyzed using multivariate analysis procedures. The multivariate analysis of variance subprogram within the General Linear Model of the Statistical Analysis System (Ray, 1982) was used to analyze all pre and post-intervention data. Follow-up procedures for significant multivariate *F*s involved univariate analyses to isolate the sources of variance. Alpha level for the multivariate analysis was set at .05, while all *a posteriori* contrasts were set at .0062 ( $\alpha/n$  contrasts) to maintain the experiment wise error rate at .05. This procedure is in keeping with the cautions advanced by Bray and Maxwell (1982) on multivariate analysis procedures. While this procedure could be deemed conservative, the inflated experiment wise error rate after eight contrasts would have been .40 if alpha had been set at .05 for each contrast.

### Results

The multivariate analysis of variance resulted in no significant differences on the ATDP completed by both groups prior to viewing the slides ( $F = 1.49, 20/141, p > .05$ ). However, on the post slide/tape 13-item questionnaire, the multivariate analysis of variance resulted in statistically significant differences on the eight non-demographic items ( $F = 11.02, 8/153, p < .05$ ). *A posteriori* contrasts found no significant differences on the item pertaining to the participants' familiarity with mental retardation, or on the item asking for estimates of the young woman's age.

Significant differences were found on estimates of the young woman's IQ, earning capability, label of mental retardation, residential environment, appropriate classroom placement and most likely employment setting. All of these differences were in the direction of estimating or predicting higher levels of competence for the student who was depicted as involved in functional activities. Post-intervention item means and multivariate *F* values are summarized by group in Table 2.

Although both groups apparently held comparable attitudes toward disabled persons (non-significant ATDP scores) and were equally familiar with the general characteristics of mentally retarded individuals, the group who viewed the functional slide sequence (Group I) was more optimistic in its estimations or predictions of competence for the young woman with Down's Syndrome. An examination of the mean scores for both groups revealed that those who viewed the functional sequence saw her as being almost a year older than the group who viewed the non-functional slides (although this was not a significant difference). Her actual age was 19. They also estimated her IQ as falling in the range of 52-68, as opposed to 36-52 estimated by the non-functional group. Further, they estimated her classification label of mental retardation as milder and believed the young woman to be capable of earning a higher wage (\$3.00 - \$3.50 per hour as opposed to \$2.00 - \$3.00 per hour) than did the non-functional group.

The mean prediction by Group I (functional) was for the young woman to be capable of living in a group home with 4-10 other residents, and that a special education class within the regular high school would be the most appropriate school placement. Both these predictions were less restrictive than those reported by the non-functional group. The mean predictions by Group II (non-functional) were that the young woman would be capable of living in a group home with 10-20 residents, and that the appropriate school situation would be a special education class in a regular grade school. While both groups predicted that some type of sheltered employment would be appropriate, Group I predicted that emphasis should be on paid piece-work while Group II emphasized pre-vocational skills.

### Discussion

The results of this study provide empirical support for the selection of functional curriculum activities as opposed to non-functional activities. In addition to the possibilities for establishing a more useful repertoire of community living skills, observation of individuals engaging in functional activities appears to positively influence peoples' judgments of the capabilities and potential of persons with severe handicaps. This result is relevant to Gold's (1982) competence/deviance hypothesis. This hypothesis suggests that the amount

Table 2  
Means and Univariate *F* Values for Post-intervention Attitude Data

Item	Group $\bar{X}$		<i>F</i>
	Group I (Functional)	Group II (Non-Functional)	
How familiar are you with mental retardation? (1-7) (No Familiarity to Highly Familiar)	3.12	3.48	2.66
What do you think is Lori's intelligence quotient (IQ)? (1-7) (20 to 100)	4.33	3.60	18.49*
What hourly wage do you feel Lori will be capable of earning after she finishes special education? (1-7) (0 to \$4.00)	5.13	4.43	17.03*
What classification label of retardation do you feel is appropriate for Lori? (1-5) (Profound to Borderline)	3.53	3.06	24.97*
What living situation do you feel Lori will be capable of handling after she finishes special education? (1-7) (Institution to Independent Apt. or House)	5.28	4.71	10.70*
What school situation do you feel would best meet Lori's needs? (1-5) (Institution Education Program to Mainstreamed in Regular High School Classes with Tutoring from Special Education Teacher)	4.05	3.08	56.56*
What kind of daytime program or activity do you feel Lori should be involved with after finishing her public education? (1-5) (None to Competitive Employment Situation, Earning Minimum Wage or Better)	3.74	3.20	15.99*
How old do you think Lori is?	17.08	16.01	4.50

\**p* = .0062

Complete analysis of variance Tables are available from the first author.

of deviance that society will tolerate is directly proportional to the amount of competence it believes the person to possess. By exposing the general public to demonstrations of competence by persons with severe handicaps, more respectful and tolerant attitudes may be promoted.

The respondents in this study (prospective educators) are in a unique position to encourage community acceptance of persons with disabilities. If "what they see

is what we get," special education personnel should be sensitive to the need to select functional curriculum content and to deliver instruction in integrated settings. From such practice, the "eternal child" stereotype (Wolfensberger, 1972) may be replaced by a mere enhancing and optimistic perspective on the competencies of persons who experience severe handicapping conditions.

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## Footnotes

<sup>1</sup>A full copy of the tape narrative is available from the first author on request.

<sup>2</sup>A copy of the 13-item questionnaire is available from the first author on request.